

Page 15, line 20, after "there" insert --is--.

Page 23, line 13, delete "the ratio of";

line 19, delete "the ratio of";

line 23, delete "the ratio of".

Page 25, line 5, delete "the ratio of".

IN THE CLAIMS

Please cancel claim 22 without prejudice or disclaimer of the subject matter thereof.

Please amend claims 18, 20-21, 24, and 26-30 as follows:

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18. (Twice Amended) An apparatus for storing data comprising:

a plurality of storage units for storing data in a plurality of data groups and error correcting data corresponding to each of the data groups, the storage units being susceptible to a fault occurring in any of the storage units, the fault affecting data stored in any of the storage units in which the fault has occurred, the affected data belonging to at least one of the data groups; and

a controller for performing processing of reconstructing the affected data [stored in any of the storage units in which a fault has occurred] based on all other data [of a corresponding] belonging to each of the at least one of the data groups to which the affected data belongs and [corresponding] error correcting data corresponding to each of the at least one of the data groups to which the affected data belongs,

C1

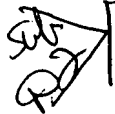


wherein the controller determines a preference to be given to the processing of reconstructing data.

320. (Twice Amended) An apparatus for storing data according to claim ²~~19~~, wherein the apparatus for storing data is connectable to a host unit which issues data read/write requests to the apparatus for storing data; and

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wherein the controller performs the processing of reconstructing data instead of processing of data read/write requests from [a] the host unit according to the preference.



21. (Amended) An apparatus for storing data connectable to a host unit which issues data read/write requests to the apparatus for storing data, the apparatus for storing data comprising:

a plurality of storage units for storing data in a plurality of data groups and error correcting data corresponding to each of the data groups, the storage units being susceptible to a fault occurring in any of the storage units, the fault affecting data stored in any of the storage units in which the fault has occurred, the affected data belonging to at least one of the data groups; and

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a controller for performing processing of reconstructing the affected data [stored in any of the storage units in which a fault has occurred] based on all other data [of a corresponding] belonging to each of the at least one of the data groups to which the affected data belongs and [corresponding] error correcting data corresponding to each of

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the at least one of the data groups to which the affected data belongs, and processing of data read/write requests from [a] the host unit;

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wherein the controller determines whether to give preference to the processing of reconstructing data or to the processing of data read/write requests, and performs the processing to which preference is given based on a predetermined limit time.

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24. (Twice Amended) An apparatus for storing data connectable to a host unit which issues data read/write requests to the apparatus for storing data, the apparatus for storing data comprising:

4

a plurality of storage units for storing data in a plurality of data groups and error correcting data corresponding to each of the data groups, the storage units being susceptible to a fault occurring in any of the storage units, the fault affecting data stored in any of the storage units in which the fault has occurred, the affected data belonging to at least one of the data groups; and

a controller for performing processing of reconstructing the affected data [stored in any of the storage units in which a fault has occurred] based on all other data [of a corresponding] belonging to each of the at least one of the data groups to which the affected data belongs and [corresponding] error correcting data corresponding to each of the at least one of the data groups to which the affected data

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belongs, and processing of data read/write requests from [a] the host unit;

wherein the controller controls an amount of time for the processing of reconstructing data within a unit time based on a predetermined limit time.

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26. (Amended) An apparatus for storing data connectable to a host unit which issues data read/write requests to the apparatus for storing data, the apparatus for storing data comprising:

a plurality of storage units for storing data in a plurality of data groups and error correcting data corresponding to each of the data groups, the storage units being susceptible to a fault occurring in any of the storage units, the fault affecting data stored in any of the storage units in which the fault has occurred, the affected data belonging to at least one of the data groups; and

a controller for performing processing of reconstructing the affected data [stored in any of the storage units in which a fault has occurred] based on all other data [of a corresponding] belonging to each of the at least one of the data groups to which the affected data belongs and [corresponding] error correcting data corresponding to each of the at least one of the data groups to which the affected data belongs, and processing of data read/write requests from [a] the host unit;

C5 <sup>Sub
PS</sup> wherein the controller controls an amount of the processing of reconstructing data based on a predetermined limit time.

<sup>Sub
PS</sup> 27. (Twice Amended) An apparatus for storing data connectable to a host unit which issues data read/write requests to the apparatus for storing data, the apparatus for storing data comprising:

C6 a plurality of storage units for storing data in a plurality of data groups and error correcting data corresponding to each of the data groups, the storage units being susceptible to a fault occurring in any of the storage units, the fault affecting data stored in any of the storage units in which the fault has occurred, the affected data belonging to at least one of the data groups; and

a controller for performing processing of reconstructing the affected data [stored in any of the storage units in which a fault has occurred] based on all other data [of a corresponding] belonging to each of the at least one of the data groups to which the affected data belongs and [corresponding] error correcting data corresponding to each of the at least one of the data groups to which the affected data belongs, and processing of data read/write requests from [a] the host unit;

wherein the controller determines an amount of [performing] the processing of reconstructing data instead of the processing of data read/write requests such that the

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processing of reconstructing data is completed within a fixed period of time.

28. (Twice Amended) An apparatus for storing data connectable to a host unit which issues data read/write requests to the apparatus for storing data, the apparatus for storing data comprising:

26 a plurality of storage units for storing data in a plurality of data groups and error correcting data corresponding to each of the data groups, the storage units being susceptible to a fault occurring in any of the storage units, the fault affecting data stored in any of the storage units in which the fault has occurred, the affected data belonging to at least one of the data groups; and

a controller for performing processing of reconstructing the affected data [stored in any of the storage units in which a fault has occurred] based on all other data [of a corresponding] belonging to each of the at least one of the data groups to which the affected data belongs and [corresponding] error correcting data corresponding to each of the at least one of the data groups to which the affected data belongs, and processing of data read/write requests from [a] the host unit;

wherein the controller performs the processing of reconstructing data in preference to the processing of data read/write requests such that the processing of reconstructing data is completed within a fixed period of time.

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29. (Twice Amended) An apparatus for storing data connectable to a host unit which issues data read/write requests to the apparatus for storing data, the apparatus for storing data comprising:

a plurality of storage units for storing data in a plurality of data groups and error correcting data corresponding to each of the data groups, the storage units being susceptible to a fault occurring in any of the storage units, the fault affecting data stored in any of the storage units in which the fault has occurred, the affected data belonging to at least one of the data groups; and

6 a controller for performing processing of reconstructing the affected data [stored in any of the storage units in which a fault has occurred] based on all other data [of a corresponding] belonging to each of the at least one of the data groups to which the affected data belongs and [corresponding] error correcting data corresponding to each of the at least one of the data groups to which the affected data belongs, and processing of data read/write requests from [a] the host unit;

wherein the controller performs the processing of reconstructing data instead of the processing of data read/write requests such that the processing of reconstructing data is completed within a fixed period of time.

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30. (Twice Amended) An apparatus for storing data connectable to a host unit which issues data read/write

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requests to the apparatus for storing data, the apparatus for storing data comprising:

a plurality of storage units for storing data in a plurality of data groups and error correcting data corresponding to each of the data groups, the storage units being susceptible to a fault occurring in any of the storage units, the fault affecting data stored in any of the storage units in which the fault has occurred, the affected data belonging to at least one of the data groups; and

27

a controller for performing processing of reconstructing the affected data [stored in any of the storage units in which a fault has occurred] based on all other data [of a corresponding] belonging to each of the at least one of the data groups to which the affected data belongs and [corresponding] error correcting data corresponding to each of the at least one of the data groups to which the affected data belongs, and processing of data read/write requests from [a] the host unit;

wherein the controller gives a preference to the processing of data read/write requests and performs the processing of reconstructing data within a remaining time.

Please add new claims 32-44 as follows:

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--32. An apparatus for storing data connectable to a host unit which issues data read/write requests to the apparatus for storing data, the apparatus for storing data comprising:

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a plurality of storage units for storing data in a plurality of data groups and error correcting data corresponding to each of the data groups, the storage units being susceptible to a fault occurring in any of the storage units, the fault affecting data stored in any of the storage units in which the fault has occurred, the affected data belonging to at least one of the data groups; and

28 a controller for performing processing of reconstructing the affected data based on all other data belonging to each of the at least one of the data groups to which the affected data belongs and error correcting data corresponding to each of the at least one of the data groups to which the affected data belongs, and processing of data read/write requests from the host unit;

wherein the controller determines an amount of the processing of reconstructing data instead of the processing of data read/write requests based on a predetermined time.

33. An apparatus for storing data comprising:

a plurality of storage units; and

a controller connected to the storage units;

wherein the storage units store data in a plurality of data groups and error correcting data corresponding to each of the data groups;

wherein the storage units are susceptible to a fault occurring in any of the storage units, the fault affecting data stored in any of the storage units in which the fault has

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occurred, the affected data belonging to at least one of the data groups; and

wherein the controller performs processing of reconstructing the affected data based on all other data belonging to each of the at least one of the data groups and error correcting data corresponding to each of the at least one of the data groups to which the affected data belongs, and determines a preference to be given to the processing of reconstructing data.

14

24.

An apparatus for storing data according to claim ¹³ 33, wherein the controller determines the preference based on a predetermined limit time.

15

25.

An apparatus for storing data according to claim ¹⁴ 34, wherein the apparatus for storing data is connectable to a host unit which issues data read/write requests to the apparatus for storing data; and

wherein the controller performs the processing of reconstructing data instead of processing of data read/write requests from the host unit according to the preference.

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36.

An apparatus for storing data connectable to a host unit which issues data read/write requests to the apparatus for storing data, the apparatus for storing data comprising:

a plurality of storage units; and

a controller connected to the storage units;

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wherein the storage units store data in a plurality of data groups and error correcting data corresponding to each of the data groups;

wherein the storage units are susceptible to a fault occurring in any of the storage units, the fault affecting data stored in any of the storage units in which the fault has occurred, the affected data belonging to at least one of the data groups; and

wherein the controller performs processing of reconstructing the affected data based on all other data belonging to each of the at least one of the data groups and error correcting data corresponding to each of the at least one of the data groups to which the affected data belongs, performs processing of data read/write requests from the host unit, determines whether to give preference to the processing of reconstructing data or to the processing of data read/write requests, and performs the processing to which preference is given based on a predetermined limit time.

37. An apparatus for storing data connectable to a host unit which issues data read/write requests to the apparatus for storing data, the apparatus for storing data comprising:

a plurality of storage units; and

a controller connected to the storage units;

wherein the storage units store data in a plurality of data groups and error correcting data corresponding to each of the data groups;

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wherein the storage units are susceptible to a fault occurring in any of the storage units, the fault affecting data stored in any of the storage units in which the fault has occurred, the affected data belonging to at least one of the data groups; and

wherein the controller performs processing of reconstructing the affected data based on all other data belonging to each of the at least one of the data groups and error correcting data corresponding to each of the at least one of the data groups to which the affected data belongs, performs processing of data read/write requests from the host unit, and controls an amount of time for the processing of reconstructing data within a unit time based on a predetermined limit time.

38. An apparatus for storing data connectable to a host unit which issues data read/write requests to the apparatus for storing data, the apparatus for storing data comprising:

a plurality of storage units; and

a controller connected to the storage units;

wherein the storage units store data in a plurality of data groups and error correcting data corresponding to each of the data groups;

wherein the storage units are susceptible to a fault occurring in any of the storage units, the fault affecting data stored in any of the storage units in which the fault has occurred, the affected data belonging to at least one of the data groups; and

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wherein the controller performs processing of reconstructing the affected data based on all other data belonging to each of the at least one of the data groups and error correcting data corresponding to each of the at least one of the data groups to which the affected data belongs, performs processing of data read/write requests from the host unit, and controls an amount of the processing of reconstructing data based on a predetermined limit time.

39. An apparatus for storing data connectable to a host unit which issues data read/write requests to the apparatus for storing data, the apparatus for storing data comprising:

a plurality of storage units; and

a controller connected to the storage units;

58 wherein the storage units store data in a plurality of data groups and error correcting data corresponding to each of the data groups;

wherein the storage units are susceptible to a fault occurring in any of the storage units, the fault affecting data stored in any of the storage units in which the fault has occurred, the affected data belonging to at least one of the data groups; and

wherein the controller performs processing of reconstructing the affected data based on all other data belonging to each of the at least one of the data groups and error correcting data corresponding to each of the at least one of the data groups to which the affected data belongs, performs processing of data read/write requests from the host

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unit, and determines an amount of the processing of reconstructing data instead of the processing of data read/write requests such that the processing of reconstructing data is completed within a fixed period of time.

40. An apparatus for storing data connectable to a host unit which issues data read/write requests to the apparatus for storing data, the apparatus for storing data comprising:

a plurality of storage units; and

a controller connected to the storage units;

28 wherein the storage units stores a plurality of data groups and error correcting data corresponding to each of the data groups;

wherein the storage units are susceptible to a fault occurring in any of the storage units, the fault affecting data stored in any of the storage units in which the fault has occurred, the affected data belonging to at least one of the data groups; and

wherein the controller performs processing of reconstructing the affected data based on all other data belonging to each of the at least one of the data groups and error correcting data corresponding to each of the at least one of the data groups to which the affected data belongs, performs processing of data read/write requests from host unit, and performs the processing of reconstructing data in preference to the processing of data read/write requests such that the processing of reconstructing data is completed within a fixed period of time.

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41. An apparatus for storing data connectable to a host unit which issues data read/write requests to the apparatus for storing data, the apparatus for storing data comprising:

a plurality of storage units; and

a controller connected to the storage units;

wherein the storage units store data in a plurality of data groups and error correcting data corresponding to each of the data groups;

wherein the storage units are susceptible to a fault occurring in any of the storage units, the fault affecting data stored in any of the storage units in which the fault has occurred, the affected data belonging to at least one of the data groups; and

wherein the controller performs processing of reconstructing the affected data based on all other data belonging to each of the at least one of the data groups and error correcting data corresponding to each of the at least one of the data groups to which the affected data belongs, performs processing of data read/write requests from the host unit, and performs the processing of reconstructing data instead of the processing of data read/write requests such that the processing of reconstructing data is completed within a fixed period of time.

42. An apparatus for storing data connectable to a host unit which issues data read/write requests to the apparatus for storing data, the apparatus for storing data comprising:

a plurality of storage units; and

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Pg 28

a controller connected to the storage units;
wherein the storage units store data in a plurality
of data groups and error correcting data corresponding to each
of the data groups;

wherein the storage units are susceptible to a fault
occurring in any of the storage units, the fault affecting
data stored in any of the storage units in which the fault has
occurred, the affected data belonging to at least one of the
data groups; and

wherein the controller performs processing of
reconstructing the affected data based on all other data
belonging to each of the at least one of the data groups and
error correcting data corresponding to each of the at least
one of the data groups to which the affected data belongs,
performs processing of data read/write requests from the host
unit, and gives a preference to the processing of data
read/write requests and performs the processing of
reconstructing data within a remaining time.

23
43. An apparatus for storing data according to claim ²² 42,
wherein the controller gives the preference based on a
predetermined limit time.

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Pg 29

44. An apparatus for storing data connectable to a host
unit which issues data read/write requests to the apparatus
for storing data, the apparatus for storing data comprising:
a plurality of storage units; and
a controller connected to the storage units;